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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------|
| 10/696,001 | 10/30/2003 | Yukiko Kashiura | 244680US2 | 5661 |
| 22850 | 7590 | 11/22/2005 | | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER ELLIS, SUEZU Y | |
| | | | ART UNIT 2878 | PAPER NUMBER |

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/696,001

Applicant(s)

KASHIURA ET AL.

Examiner

Suezu Ellis

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 16, 20 and 22 is/are rejected.
- 7) ☒ Claim(s) 2-15, 17-19, 21, 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The disclosure is objected to because of the following informalities: On page 10, line 1, the word "photosensor" is misspelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 16, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US 6,348,682).

With respect to claims 1 and 16, Lee discloses in Figs. 3 and 4, a photodetector circuit comprising a photodiode (336), a first amplifier (300), and a second amplifier which is in a non-operating state ("disabled") before a trigger signal (control signal – logic low DATA_ON) is inputted and changes to an operating state when the trigger signal is received and the amplifies the output of the first amplifier (col. 5, lines 26-41). Note, photodiode is deemed functionally equivalent to a photodiode arithmetic circuit since both output photocurrent generated by light irradiation. Figs. 3 and 4 illustrate the photodiode (336) and the first amplifier (300) are in an operating state regardless of the trigger signal. Note, although claim language recites "regardless of whether before or after the input of the trigger signal", the claim language does not specifically recite the trigger signal is inputted into the photodiode or into the first amplifier. Lee further discloses by inputting the trigger signal, the second amplifier will be ready to amplify input signals from the first amplifier (300) which will send the signal to the comparator for determination of an presence of an object (detection result) (col. 10, lines 3-18). Lee also discloses the photodetector circuit can be fabricated on a single chip or integrated circuit, thus can also be a semiconductor photodetector (col. 7, lines 48-50). With respect to claim 16, Lee fails to expressly disclose the system being directed towards a portable terminal unit, however, applicant's claim language does not provide any structural limitations limiting the system to a portable terminal unit - therefore, the

limitation in the preamble of the system as recited is directed towards an intended use of the system, and hence, cannot be given patentable weight.

With respect to claims 20 and 22, Lee discloses the switch timing circuit provides the trigger signal, however fails to expressly disclose how the switch timing is programmed. Nevertheless, it is inherent that a user must perform/create the programming of the switch timing circuit to control the trigger signal, thus the trigger signal is generated via a user operation.

Allowable Subject Matter

Claims 2-15, 17-19, 21 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 2, prior art fails to teach or reasonably suggest, a first power supply voltage supplied to the photodiode, a second power supply voltage supplied to the first amplifier and a third power supply voltage supplied to the second amplifier upon receiving the trigger signal, in addition to the other limitations of the claim.

With respect to claim 10, prior art fails to teach or reasonably suggest, a first power supply voltage supplied to the photodiode, first amplifier and second amplifier and the photodiode and first amplifier are connected to a first terminal of a second power supply potential and the second amplifier is connected to the first terminal via a switching circuit, in addition to the other limitations of the claim.

With respect to claim 13, prior art fails to teach or reasonably suggest, a first power supply voltage supplied to the photodiode, first amplifier and second amplifier and the photodiode and the first amplifier connected to a first terminal to which a second power supply potential is supplied and a current which flows from the second terminal into the second amplifier is used as an output current of the photosensor device, in addition to the other limitations of the claim.

With respect to claim 17, prior art fails to teach or reasonably suggest a light emitting element whose brightness is adjusted according to the detection result, in addition to the other limitations of the claim.

With respect to claims 18 and 19, prior art fails to teach or reasonably suggest key operations in addition to other limitations of the claim.

With respect to claims 21 and 23, prior art fails to teach or reasonably suggest a power supply voltage is supplied to the second amplifier only upon receiving the trigger signal, in addition to the other limitations of the claim.

Claims not specifically mentioned are objected to due to their dependency.


Telephone/Fax Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suez Ellis whose telephone number is (571) 272-2868. The examiner can normally be reached on 8:30am-5pm (Monday-Friday).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800